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BASIC-ABSTRACT: NOVELTY - The present invention relates to a plastic tire product. The tire product is made up by using plastics and plastic cement as ~~matrix material and using various cord fabrics as skeleton~~ material, and is identical to rubber tire in behavior.

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[54]发明名称 塑料轮胎

[57]摘要

本发明涉及的产品塑料轮胎, 它是以塑料和塑
胶为基体材料和各种帘布为骨架材料的轮胎, 它能
达到与橡胶轮胎同等性能。

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权 利 要 求 书

- 1、一种塑料轮胎产品其特征在于它的基体材料是各种塑料和各种塑胶，其骨架材料是各种纤维织成帘布，经成型后在模内热合而成。
- 2、根据权利要求1所述的塑料轮胎其特征在于它的基体材料是用各种塑料弹性体和各种塑胶，其骨架材料是用各种纤维织成的帘布或织物以及钢丝帘布为骨架材料。
- 3、根据权利要求1所述塑料轮胎其特征在于它的外形分为普通形轮胎和活面轮胎和活胎面以及无内胎轮胎，其主尺度按需要而定。
- 4、根据权利要求1所述的塑料轮胎其特征在于它的结构分为有骨架材料轮胎和无骨架材料的轮胎。
- 5、根据权利要求1所述的塑料轮胎其特征在于它的活面胎轮胎的胎体和胎面的配合是过盈配合也可以是热合配合。

塑料轮胎

本发明涉及的产品塑料轮胎，它是以塑料和塑料为基体材料和各种帘布为骨架材料的轮胎，它能达到与橡胶轮胎同等性能。

橡胶轮胎以有近百年历史，它对社会发展作出伟大的贡献，今后将继续为社会做出贡献。它是以橡胶为基体材料并配有各种纤维帘布的骨架材料。由于社会经济的大发展对橡胶应用日益增大，使橡胶价格猛增，增大了生产成本，由于修理轮胎工艺复杂并且易于老化，因此使用很不经济。

本发明于在提供一种生产工艺简单易修理，在物理性能方面能达到和超过橡胶轮胎的一种塑料轮胎以扩大轮胎这个大家族，满足社会对轮胎使用日益增长的需求。

塑料轮胎它是各种塑料弹性体（如聚氨脂等）和各种塑胶（如TPR等）为轮胎的基体材料而以各种纤维织成的帘布织物，和钢丝帘布为骨架材料的一种新型轮胎。轮胎结构分无骨架材料的轮胎和有骨架材料的轮胎两种。从外型来说它分为普通型轮胎和活面胎轮胎及活胎面以及无

说 明 书

内胎轮胎等有骨架材料的轮胎又分为斜交胎和子午胎，其具体尺度按需要而定。其活面轮胎的胎体与胎面的配合是过盈配合也可以是热合配合。

塑料和塑胶在工艺性能方面比橡胶简单，它不用硫化（个别硫化也有），它可以“回收再用”也就是说它可以加温到一定温度又恢复其性能。可以“返老还童”从而大大降低生产成本，又由于它不需硫化，翻新修补又比较容易，从而使用经济效果好。

制造成形方法很多，帘布可以先挂胶，也可边成形边贴胶，基料成形可以用注塑法，热压法可以同时并用喷、刷、浸等方法。成形后进入模内加温热合，冷却出模。

操作也简单，由于其强度靠材料，精度靠模具，所以一般工人经短期培训即可掌握。

塑料和塑胶目前在兴旺发达时候，其价格又比橡胶便宜，其各种骨架材料国内很好买，至于本产品销售量，只要保证产品质量是供不应求的。因为目前我国行驶车辆已达两仟多万辆，不怕卖不出去。

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PLASTIC TIRE
[Su liao lun tai]

Qiao Changlin

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Claims

1. The special characteristic of this type of plastic tire is that its matrix material is made up of various types of plastics and rubbers, its skeleton material is composed from various types of cord fabrics, and it is formed by means of mold heat sealing after forming.

2. The special characteristic of the plastic tire described in Claim 1 is that its matrix material utilizes various types of elastomers and various types of plastic cements, its skeleton material is a cord or fabric composed from various types of fibers, and the steel cord is skeleton material.

3. The special characteristic of the plastic tire described in Claim 1 is that its external forms are separately the common form tire, replaceable tread tire, and removable tread, as well as the tubeless tire. Its main dimensions are determined based on requirements.

4. The special characteristic of the plastic tire described in Claim 1 is that its structure is separately a skeleton material tire and a tire without skeleton material.

5. The special characteristic of the plastic tire described in Claim 1 is that the fitting of the carcass and tread of its replaceable tread tire is shrink fitting, and it can also be heat seal fitting.

Explanations

Plastic Tire

The product involved in this invention is a plastic tire. It is a tire that uses plastic, plastic as the matrix material; and various types of cord as the skeleton material, and it is able to realize performance equivalent to that of the rubber tire.

The rubber tires have a history of nearly one hundred years, it has made a tremendous contribution to the development of society, and in the future it will continue to make contributions to society. It utilizes rubber as the matrix material and the skeleton material is made up of fiber cords. Major socio-economic development has daily increased the usage of rubber and this has resulted in the drastic increase of the price of rubber as well as enlarged production costs. Owing to the fact that the technological process for repairing tires is complex and it easily experiences ageing, therefore use is very uneconomical.

This invention involves providing a type of plastic tire that has a simple production technological process, is easy to repair, and is able to reach and surpass the rubber tire in terms of physical performance so as to enlarge the great family of tires as well as satisfy the continually growing needs of society for tire usage.

The plastic tire is a new type of tire that employs various types of plastic elastomers (such as polyurethane, etc.) and various types of plastic cement (such as TPR, etc.) as the matrix material of the

tire, as well as using various types of fiber woven cord and fabric, and steel cord as the skeleton material. The structure of the tire is divided into the two types of tires without skeleton material and tires with skeleton material. In terms of its external forms, the tires with skeleton material, such as the common form tire, replaceable tread tire, and removable tread, as well as the tubeless tire are further divided into the cross-ply tire and the radial tire, and its specific dimensions are determined based on requirements. The fitting of the carcass and tread of its replaceable tread tire is shrink fitting, and it can also be heat seal fitting.

Plastic and plastic cement are simpler than rubber in terms of technical performance, it does not use vulcanization (there are also individual instances of vulcanization), it can be "restored and used again," which is to say it can be heated to a certain temperature and recover its properties. It can be "rejuvenated" and thus greatly reduce production costs, and because it does not require vulcanization, retread repairing is also quite easy so that usage economic effects are good.

There are many manufacturing formation methods. The cord can first use hang cementing, and coating while forming can also be used. The injection molding method can be used for matrix formation, the thermal pressure method can simultaneously employ spraying, brushing, soaking, and other methods, and after formation, it is entered into the mold, heated, and heat sealed, then cooled and taken out of the

mold.

The operations are also simple, and owing to the fact that its hardness relies on the materials and the precision relies on the mold, most workers can master them after a short period of training.

At present, plastic and plastic cement are in a flourishing period, its price is cheaper than rubber, its various types of skeleton materials are easily purchased in China, and as for the sales volume of this product, it is only necessary to guarantee the quality of the product and the demand will exceed the supply. Because the number of driven automobiles has now already reached to over 20 million in China, there is no fear that they will not be able to be sold.